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ABSTRACT

In response to national calls for educational reform, Maine's legislature established a career ladder certification system with three steps: provisional, professional, and master teacher. The goal was to tie teacher advancement to evidence of improved teaching and classroom management. The 1984 plan required that teacher committees develop certification criteria at the local school system level and that the new certification strategy be pilot tested in selected districts for a three-year period. Maine's law gave local administrators responsibility for setting standards and for measuring their colleagues' performance. This paper analyzes the master teacher criteria created by local committees in 16 pilot districts. The length of typical Maine criteria lists and the variety of topics covered made it difficult to summarize their content. However, the items were grouped into the following categories or domains. The teacher: (1) prepares for instruction effectively; (2) uses teaching strategies and procedures appropriate to the content, objectives, and learners; (3) uses evaluation to improve instruction; (4) manages classroom activities effectively; (5) establishes and maintains a professional leadership role; (6) communicates effectively; and (7) manages routine business and recordkeeping efficiently. Each item on a local district list was assigned to one of these categories. Results showed that pilot sites did not create criteria stressing improved teaching and classroom management. One-third of all criteria were professional leadership items, while instuctional and classroom management items comprised only 17 percent and 16 percent of the total, respectively. Committees relied on nonpedagogical aspects of teacher performance and produced remarkably similar lists. Also, the 16 pilot site lists contained many hard-to-measure process-type criteria and used high-influence language creating interpretation problems. Maine's effort to engage teachers in certification calls into question several propositions concerning the benefits of professional self-regulation. Still, teachers' trust in the criteria and process may compensate for these difficulties. Included are seven references and five tables. (MLH)

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Teacher Selection of Master Teacher Criteria: Giving the Profession Local Control

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Maine has responded as other states have to the national calls for educational reform by legislating new teacher certification requirements and processes. In 1984, Maine's legislature established a career ladder certification system with three steps: provisional, professional, and master teacher. The explicit goal of the reform was to tie the advancement of Maine teachers to evidence of improved teaching and classroom management.

The Maine plan was unique in two respects. First, it required that certification criteria be developed by teacher committees at the local school system level. Unique also to the Maine plan were provisions for pilot testing the new certification strategy for a three year period in selected districts. The law provided that local committees, with classroom teachers in the majority, would: a) establish standards for determining professional and master teacher status; b) provide support and training for candidates for those certificates; and c) make the initial recommendation for certification to the state. In short, Maine's law gave local educators responsibilities for setting standards and for measuring the performance of their colleagues which no other state has yet extended to the profession.

This paper describes the results of an analysis of the master teacher criteria created by the local committees in 16 pilot districts. The purpose of the analysis is twofold: 1) to examine the range and distribution of teacher activities

represented on the criteria lists; and 2) to investigate the utility of lists in defending judgments of certification status. The study characterizes the criteria selected by teachers according to their content and their measurability in an effort to gauge the benefits and drawbacks of teacher involvement in certification.

Collectively, the 16 pilot districts identified a total of 819 master teacher criteria for use in determining master teacher status; 593 of these were unique (not duplicates). The composite list and the 16 site lists were analyzed by content (aspects of teaching), by type (input, output, process, content) and by the level of inferential language they contained. The analysis yielded clear tendencies in each dimension which, when considered alone and in combination, demonstrate the preferences and problems inherent in locally derived master teacher plans.

Criteria Content

The length of typical Maine criteria lists (mean number of items = 51) and the variety of topics covered made it difficult to summarize their content. The items were grouped into categories according to the scheme used by Tennessee in its Career Ladder Program since it was typical of schemes used to group teacher competencies and behaviors for various purposes (Vincent, 1986). The following six categories or domains were used by Tennessee (Tennessee Department of Education, 1984). The subheadings from the Tennessee list are also included here to show what areas are covered by each domain.

Planning for instruction. Prepares for instruction effectively: (a) Establishes appropriate instructional goals and related objectives consistent with the curriculum. (b) Prepares instructional plans and materials incorporating principles of effective instruction. (c) Creates, selects, or modifies instructional plans and materials to accommodate learner instructional levels.

Delivery of instruction. Uses teaching strategies and procedures appropriate to the content, objectives, and learners: (a) Provides a clear description of the learning task and its content. (b) Monitors learner understanding and reteaches as necessary. (c) Provides learners appropriate practice and review. (d) Establishes and maintains learner involvement in the learning task.

Evaluation of student progress. Uses evaluation to improve instruction: (a) Uses information about learner performance to improve the instructional process. (b) Reports learner status and progress to learners and their parents.

Classroom management. Manages classroom activities effectively: (a) Establishes and maintains appropriate learner behavior. (b) Establishes and maintains a classroom climate conducive to learning. (c) Makes effective use of classroom resources.

Professional leadership. Establishes and maintains a professional leadership role: (a) Improves professional skills and knowledge. (b) Takes a leadership role in improving education. (c) Performs professional responsibilities efficiently.

Basic communication skills. Communicates effectively: (a) Writes clearly and correctly. (b) Communicates oral information effectively. (c) Reads professionally relevant literature/ materials with comprehension.

Some additional criteria appeared on the Maine lists which did not fit appropriately in any of Tennessee's categories. In particular, the Tennessee format had no place for items which dealt with years of experience, certification level, and knowledge of subject matter. For the purposes of this study, a seventh category (Other) was included for grouping these items and any others which did not fit Tennessee's scheme.

Many items from the Maine lists fit clearly into the Tennessee categories, as determined through a juried content analysis process. The following Maine items are provided to give the reader a quick overview of the nature of the criteria found in the sixteen lists.

(a) Planning for Instruction

Creates, selects or modifies instructional plans and materials to accommodate learner differences.

Plans for both lower and high level thinking skills.

(b) Delivery of Instruction

Explains concepts clearly and effectively, using a variety of modalities.

Stimulates thinking through questioning techniques.

(c) Evaluation of Student Progress

Returns corrected seatwork, homework, and other work promptly.

Uses evaluation to improve instruction

(d) Classroom Management

Classroom climate is warm and stimulating.

Uses positive reinforcement techniques.

(e) Professional Leadership

Conducts workshops for other teachers.

Is helpful to colleagues who are in need of their professional knowledge.

(f) Basic Communication Skills

Uses correct grammar and mechanics.

Must exhibit strong communication skills.

(g) Other

Manages routine business and record keeping efficiently.

Demonstrates the ability to motivate students.

Demonstrates knowledge of subject material, methodology, or content.

Has taught for a minimum of seven years.

Each Maine item was assigned to one of the seven content categories described above. Table 1 reports the distribution of items by content category.

Professional Leadership activities constituted the largest single grouping of items on the Maine lists (27.8%). Delivery of Instruction (20.5%) and Classroom Management (16.4%) activities were the two next largest categories. Basic Communication Skills made up the smallest set of criteria (6.7%). Planning for Instruction (8.3%) and Evaluating Student Progress (8.4%) items were represented roughly one quarter as often as Professional Leadership items.

Table 1 also shows how the 593 unique items fall into the various categories. Except for a slight change in the ranking of the seven categories, removing the duplicate items from the pool does not change the distribution of the items in any appreciable way. Professional Leadership activities assume even a more dominant position in the rankings, however, as the representation of classroom practices shrinks.

The 593 unique items were also summarized in subcategories. Table 2 includes each subcategory from which three or more items appeared in the total of 593.

Examination of either Table 1 or Table 2 shows that the Maine lists covered a broad variety of teacher criteria, centering most heavily on Professional Leadership activities followed by Classroom Management and Delivery of Instruction.

When the criteria are examined on a site by site rather than a pooled basis, the emphasis on Professional Leadership criteria remains evident (see Table 3).

On 14 of 16 lists, this category was the largest in 12 cases and ranked second in two cases. Delivery of Instruction criteria ranked most dominant on three lists and second on four lists. Interestingly, criteria falling into the Other category were frequent as well, ranking as the second most dominant category on seven lists and tying for most dominant on one list (many such items described experience, administrative efficiency, and knowledge level). All of the lists contain some items in the Professional Leadership and Delivery of Instruction categories.

Criteria Type

Each of the 819 master teacher items was also categorized by type. Several types of criteria can be used to address the same content. The four types used in the study were based on descriptions of variables found in the literature relating to research on teaching. The Process and Outcome types were derived from the process-product paradigm. They were modeled after factors which are widely used to describe the independent and dependent variables in studies of teacher effectiveness (e.g., ERS 1983; Medley 1985; Ryans 1960). The Input and Context types

were based on the presage and context variables described by Dunkin and Biddle (1974) and Gage (1978).

The following examples of criteria show how the same content can be expressed in terms of the four different types.

> Input criteria deal with predetermined teacher characteristics or qualities; e.g., The teacher knows how to write lesson plans.
>
> Process criteria describe what a teacher does; e.g., The teacher writes lesson plans.
>
> Outcome criteria deal with outcomes of a teacher's work; e.g., As a result of lesson planning, classes are well organized.
>
> Context criteria always tie the variable to some condition such as grade level, subject area, age of students, or community expectations; e.g., The teacher writes lesson plans which are appropriate for the grade being taught.

Each Maine criterion was assigned to one of the four types using a juried process.

Analysis of the 593 unique criteria revealed that they cover a variety of content categories. However, examination of the types of criteria utilized reflected a high degree of homogeneity. Five hundred three (89%) of the 593 criteria were of the Process type. Consequently, when the Process criteria were broken down by content category, they distributed in almost the same proportion as the entire pool of unique criteria (see Table 4).

The following items are typical of the Process criteria which were utilized.

Process Criteria:

Identifies content, materials, and media needed.
Distinguishes steps in the learning task.
Provides specific information for improvement of work.
Manages classroom activities effectively.
Initiates projects and activities in the school.
Uses vocabulary and style appropriate to the level of the audience.
Develops effective positive rapport with students.

Of the remaining 90 items, 61 were Input criteria. These items were not distributed evenly across the seven content categories. Eighty-seven percent of them fell into two categories: forty-six percent under Professional Leadership and forty-one percent under "Other". The following examples are typical of the Input items used in the Maine lists.

Input Criteria:

Is sensitive to town values and politics.
Is willing to give assistance.
A master teacher shall currently hold a professional teaching certificate.
Possesses knowledge of motivation and reinforcement skills.

Given the many arguments about the importance of context in defining good teaching, the authors expected to find many context specific items. However, only seven such items were found in the entire pool of 593 unique criteria. Four examples are listed here.

Context Criteria:

Appropriately modifies adopted curriculum materials to meet student needs.
Presents subject matter suitable to the grade level.
Uses teaching strategies and procedures appropriate to the content.
Master teachers demonstrate expertise in their content area or grade level.

Finally, only three Outcome criteria appeared in the entire pool. They are listed below.

Outcome Criteria:

Students of master teachers would learn expected content as measured by teacher developed tests.
Classroom climate is warm and stimulating.
Students are on task.

Nineteen items could not be confidently assigned a type and were categorized under "mixed". These items were worded in such a way that they contained two types of criteria. An example is:

> Keep abreast of current thinking in their field(s), and are familiar with the latest advancements.

"Keep abreast" is a process criterion, while "are familiar" is an Input criterion.

Although all four criteria types were represented in the Maine lists, there is a clear preference for Process criteria. Table 5 shows how the pool of criteria is distributed in terms of the four types.

Criteria Inference Level

In addition to differences in content and type, criteria vary in specificity or inference level. High Inference items are abstractly stated in broad or general terms. When used by an observer, they cannot be rated without using considerable judgment. Low Inference items refer to concrete qualities, characteristics, behaviors, or outcomes. They describe clearly observable or measurable aspects of teacher performance, background, or context. As in the previous analyses, the Maine master teacher criteria were designated "high" or "low" inference through a juried procedure.*

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*Unlike the jurying of criteria type, it was quite difficult to obtain consensus among panel members regarding Low Inference items. High Inference items were more frequently agreed upon.

Eighty-four percent of the 593 criteria were identified as High Inference (see Table 5). Of the sixteen percent which were labeled Low Inference, nearly half (46%) were listed under Professional Leadership, and over one-fifth (21%) were listed under Other.

Typical examples include:

Professional Leadership:
- Establishes goals and plans for professional development.
- Minimum of bachelor's degree plus 15 graduate credit hours.
- Supervises and critiques other teachers.

Other:
- A master teacher shall be endorsed by at least 20% of the staff.
- Is currently employed as a classroom teacher.

From these data, it is apparent that most criteria suggested by groups of Maine district educators were of an abstract nature, requiring judgment to identify. Items tending to describe "checkpoint" requirements such as degrees held, were included in the Low Inference category.

Summary of Criteria Lists

Table 3 provides a breakdown of the 16 lists by category, type, and inference level. Typically, one third of the items fell into the Professional Leadership category, and eighty percent of the criteria were Process type. The typical list was primarily composed of High Inference items.

Of the sixteen lists analyzed, nine had items in all seven categories. Six had criteria in all but one of the seven and only one had criteria in less than five categories. All of the lists contained some items in the Professional Leadership and Delivery of Instruction categories.

Three lists were composed of entirely of Process type criteria, while only three had less than seventy percent Process items. No list contained all four types of criteria, and nearly half of the mixed type were found in the list from site No. 6.

Only the list from site No. 14 had less than seventy percent High Inference items. It was also one of only two lists which had a majority of Input type items.

Implications for Locally Based Certification

Maine's efforts to pilot test the state's novel certification process is noteworthy from several perspectives. First, it recognizes the importance of teacher authorship in the development of locally relevant standards, a factor frequently cited for the demise of outstanding teacher plans in the past (NEA, 1961; ERS, 1979a, 1983b; Johnson, 1984). Second, Maine's law seeks to use the expertise of the teaching profession to construct defensible master teacher criteria, a task which districts and states have repeatedly failed to perform in the eyes of the profession and the research community (Cohen and Murnane, 1985; ERS, 1983). Finally, Maine's new certification system assumes that teacher involvement will improve teacher understanding and acceptance of the criteria over plans where they are imposed, enhancing their use both as standards and as guidelines for professional development (Wise, Darling-Hammond, McLaughlin and Bernstein, 1985).

The results of the research reported in this paper raise doubts about several of these premises. The legislation assumed that teacher groups would base master teacher status on improved teaching and improved classroom management. The pilot sites, however, did not create criteria stressing these content categories. One third of all criteria were Professional Leadership items, including relationships to colleagues, participation in professional activities, and serving as a role model. Moreover, criteria emphasizing experience, coursework, and administrative efficiency (Other) often ranked second in dominance on lists. By contrast, items fitting the Delivery of Instruction and Classroom Management categories constituted 17% and 16% of the total respectively. These results, among others, indicate a reliance by the local committees on nonpedagogical aspects of teacher performance in the effort to identify the exemplary teacher.

The legislation also assumed that teacher authorship would generate lists which would be useful in peer-assessment for certification. The pilot site lists, however, included many criteria which are difficult to measure. Most criteria were of the Process type. These present measurement problems deriving from the need to observe teacher performance in a variety of contexts and in a continuous fashion. While Process and Context criteria have manifest appeal to teachers, their use by local educators in certification decisions will be seriously hindered by the inaccessibility of relevant behaviors to peer assessors.

The legislation further assumes that teacher authorship will encourage teachers to support colleagial accountability for competency development. While teacher involvement might increase peer acceptance of criteria lists, it nevertheless appears to leave unresolved fundamental measurement and evidentiary problems. In addition to the impracticalities of Process criteria, the overwhelming use of high inference language leaves open to interpretation and variation the final certification decision. In effect, many Maine lists appear to give local teacher-dominated groups extensive leeway to operationalize the lists to fit immediate conditions. These findings, and the absence of outcome measures from the lists, confound measurement questions and are likely to weaken the defensibility of the entire process.

Maine's legislation further assumed that, by giving local committees authorship, criteria would reflect the priorities and conditions of each district, allowing a desirable degree of variability among the state's diverse communities and schools. By contrast, most of the 16 pilot sites developed lists which were alike. Although several sites created variations, three quarters of the lists were close to the modal distribution by content, type, and inference level. While it may remain desirable to involve local educators in the derivation of master teacher criteria, the product seems unlikely to be much different than a state-imposed list would be.

In sum, Maine's worthy effort to engage the teaching profession in certification calls into question several propositions concerning the benefits of professional self-regulation. Although these benefits are not widely confirmed in the study, we caution that other benefits, such as teachers' trust in the criteria and local process, may indeed compensate for these difficulties. Further, the technical difficulties involved in the documentation of teacher quality noted here are not new. It may well be that Maine's faith in local educators' abilities to overcome them may yet make the difference.

References

Cohen, K. K., & Murnane, R. (1985, Summer). The merits of merit pay. The Public Interest, 3-30.

Educational Research Service. (1983). Merit pay for teachers: status and description. Arlington, VA.

Johnson, S. M. (1984). Pros and cons of merit pay Phi Delta Kappan fastback. Bloomington, IN: PDK.

National Education Association. (1961). Why have merit plans for teachers' salaries been abandoned? (Research Report 1961-63). Public School Salaries Series, Washington, DC.

Tennessee Department of Education. (1984). Teacher orientation manual. Nashville, TN.

Vincent, Paul (1986). Teacher Perceptions of Criteria for Identifying Master Teachers in Maine. Unpublished doctoral dissertation, University of Maine.

Wise, A., Darling-Hammond, L., McLaughlin, M. W., & Bernstein, H. (Rand Coporation). (1985, September). Teacher Evaluation: A study of effective practices. Elementary School Journal, 86(1), 61-121.

Table 1

Maine Criteria by Category

Category	All Items		Unique Items	
	Freq.	%	Freq.	%
Professional Leadership	228	27.8	192	32.4
Delivery of Instruction	168	20.5	98	16.5
Classroom Management	134	16.4	104	17.5
Other	97	11.8	84	14.2
Eval. of Student Progress	69	8.4	39	6.6
Planning for Instruction	68	8.3	42	7.1
Basic Communication Skills	55	6.7	34	5.7
Total	819	100.0	583	100.0

Table 2

Criteria Sub-categories (with more than 3 items each)

1) Planning for Instruction
   - Selection and use of instructional materials
   - Instructional goals and objectives
   - Lesson (instructional) plans
   - Utilization of facilities and resources

2) Delivery of Instruction
   - Participation and involvement of students in class
   - Use of teaching techniques
   - Meeting individual needs of students
   - Use of teaching strategies
   - Time on task
   - Monitoring student work
   - Providing practice
   - Providing appropriate assignments
   - Use of questioning techniques

3) Evaluation of Student Progress
   - Use of evaluation and assessment
   - Feedback to students and parents
   - Short term feedback to students

4) Classroom Management
   - Management of student behavior
   - Classroom climate or atmosphere
   - Teacher's positive affect
   - High expectations of students (academic)
   - Rules and discipline
   - Use of facilities and materials, and arrangement of furniture
   - Encouragement and positive reinforcement
   - Classroom management skills and techniques
   - Clear expectations of students
   - Teacher organization

5) Professional Leadership
   - Sharing and cooperating
   - Professional growth and development
   - Participation in curriculum, assessment, in-service activity
   - Participation in courses and training (includes degree work)
   - Commitment to school or group
   - Professional leadership role
   - Attitude and sense of humor
   - School community relations
   - Participation on teacher support team
   - Visibility, availability
   - Serving as a role model (for students or other professionals)
   - Serving as an in-service provider
   - Participation in professional organizations

6) Basic Communication Skills
   - General communication skills
   - Oral communication skills

7) Other
   - Record keeping, punctuality, school policies, or attendance
   - Motivation, expectations of students (general), enthusiasm, or rapport with students
   - Knowledge of subject
   - Experience and certification

Table 3

Criteria Characteristics by Site (percent distributions by content, type, and inference)

	SITE I.D. #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	MEAN
	TOTAL NUMBER OF ITEMS	50	30	114	23	30	37	130	15	66	16	26	118	114	13	23	14	51
CONTENT	% PROF. LEADERSHIP	56.6	36.7	23.7	43.5	36.7	51.4	17.7	53.3	31.8	25.0	26.9	23.7	14.9	53.8	13.0	28.6	33.54
CONTENT	% DELIV. OF INSTRUC.	6.0	13.3	26.3	13.0	10.0	16.2	21.5	6.7	9.1	18.8	23.1	22.0	30.7	7.7	47.8	14.3	17.91
CONTENT	% CLASSROOM MANAGEMENT	6.0	16.7	19.3	8.7	16.7	10.8	26.9	0.0	15.2	12.5	19.2	15.3	17.5	0.0	0.0	21.4	12.89
CONTENT	% OTHER	8.0	23.3	8.8	21.7	13.3	10.8	7.7	20.0	22.7	18.8	7.7	9.3	6.1	38.5	13.0	28.6	16.14
CONTENT	% EVAL/STUDENT PROG.	10.0	6.7	11.4	0.0	3.3	2.7	9.2	6.7	7.6	0.0	7.7	11.9	10.5	0.0	4.3	0.0	5.75
CONTENT	% PLAN. FOR INSTRUC.	4.0	3.3	9.6	0.0	6.7	5.4	9.2	6.7	9.1	18.8	3.8	9.3	9.6	0.0	21.7	0.0	7.33
CONTENT	% COMMUNICATION SKILL	10.0	0.0	0.9	13.0	13.3	2.7	7.7	6.7	4.5	6.3	11.5	8.5	10.5	0.0	0.0	7.1	6.42
TYPE	% PROCESS CRITERIA	74.0	76.7	94.7	73.9	100.0	51.4	96.9	100.0	87.9	93.8	92.3	97.5	100.0	30.8	78.3	28.6	79.80
TYPE	% INPUT CRITERIA	22.0	10.0	2.6	17.4	0.0	24.3	1.5	0.0	12.1	0.0	0.0	0.8	0.0	69.2	17.4	57.1	14.65
TYPE	% MIXED CRITERIA	2.0	6.7	1.8	8.7	0.0	24.3	0.0	0.0	0.0	6.3	0.0	0.0	0.0	0.0	4.3	7.1	3.83
TYPE	% CONTEXT CRITERIA	2.0	0.0	0.9	0.0	0.0	0.0	1.5	0.0	0.0	0.0	7.7	1.7	0.0	0.0	0.0	0.0	0.86
TYPE	% OUTCOME CRITERIA	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1	0.86
INF	% HIGH INFERENCE	92.0	70.0	84.2	73.9	90.0	97.3	80.0	73.3	83.3	93.8	92.3	77.1	84.2	46.2	91.3	71.4	81.27
INF	% LOW INFERENCE	8.0	30.0	15.8	26.1	10.0	2.7	20.0	26.7	16.7	6.3	7.7	22.9	15.8	53.8	8.7	28.6	18.74

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Table 4 Distribution of Criteria Types by Content Category

Process (PRO), Input (INP), Context (CON), Output (OUT), and Mixed (MIX) Criteria Types in the Maine Lists (duplicate items removed)

Content Category (Percent of all items)	Type (Percent of Total)				
	PRO	INP	CON	OUT	MIX
Planning for Instruction (7%)	8	2	-	-	-
Delivery of Instruction (17%)	18	5	57	33	-
Eval. of Student Progress (7%)	7	2	-	-	5
Classroom Management (18%)	20	3	14	67	5
Professional Leadership (32%)	30	46	-	-	58
Basic Communication Skills (6%)	6	2	-	-	-
Other (13%)					
Total (100%)	84	10	1	1	3

Table 5

Maine Criteria by Type and Inference Level

	All Items		Unique Items	
	Freq.	%	Freq.	%
Type				
Process	727	88.8	503	84.4
Input	62	7.6	61	10.3
Mixed	19	2.3	19	3.2
Context	8	1.0	7	1.2
Outcome	3	.4	3	.5
Total	819	100.0	593	100.0
Inference Level				
High Inf.	676	82.5	497	83.8
Low Inf.	143	17.5	96	16.2
Total	819	100.0	593	100.0